

by three wide strips of adhesive plaster which encircled the whole leg; dry lint and bandages constituted the dressing.

It should be remarked that the hemorrhage during the operation was very abundant, so much so as to require the application of the tourniquet, no ligatures were necessary, however, as the use of cold water succeeded in arresting the hemorrhage completely.

The recovery of the patient was complete though tedious.

September 1, 1865. The patient has been discharged the service, and came to my office this morning for the purpose of having a photograph taken of his sound and useful leg. Stated to me that a few days since he walked six miles upon this foot without the use of crutch or cane, and considers it full as useful as its neighbour.

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ART. X.—*Amputation of Right Shoulder-Joint.* By W. P. MOON, M. D., late Executive Officer of Mower U. S. A. Hospital, Chestnut Hill, Pa.

THIS case is presented, on account of the form of incision differing from any laid down in the works on surgery, with the hope that it may be of interest to the profession, and may prove of service to any one who might happen to have an injury of the same character to treat.

It has been seen and admired by several surgeons, among them Dr. Stephen Smith, of New York. I believe it has advantages over some operations, owing to the division of less muscular tissue, thus giving less surface to heal, consequently requiring a shorter time to effect a cure, and leaving greater rotundity and beauty to the shoulder:—

Samuel Irwin, Corporal Co. I, Sixty-seventh Pennsylvania Volunteers, aged 23, sound health and temperate habits, was admitted to Mower U. S. A. Hospital, September 24th, 1864, for gunshot wound of right shoulder, received at Winchester, Va., September 22d, by conical ball. Bullet entered at anterior border of deltoid muscle, four inches below acromion, injuring but not fracturing the humerus, and emerged one inch anterior to axillary border of right scapula. To all appearances the injury to the bone was only a slight contusion, but subsequent results demonstrate what serious consequences may follow mere contusions of the long bones of the body as well as similar injuries to the bones of the head.

The case did well under simple dressings until Oct. 15th, when sloughing of anterior wound supervened, which was treated with bromine, followed by a solution of permanganate of potash, x grs. to aquæ, 3j. Extra diet, milk punch and beef essence were administered.

October 28. Hemorrhage occurred from anterior circumflex artery, which was ligated.

November 2. Ligature separated, and was removed.

December 6. Abscesses were discovered, forming about the middle third of the arm, and a free incision was made to relieve the parts of pus. The humerus was found to be denuded of periosteum to a large extent. The patient failed rapidly, and it was feared he would succumb under the

exhausting effects of the drain upon the system. Quinine and iron were added to the treatment, also a pint of pure cream to daily diet.

12th. Quite improved, appetite increasing, and general health better, although extensive necrosis is going on, involving nearly the entire shaft of the humerus.

January 2, 1865. Improving, but necrosis still going on.

9th. Sloughing occurring, a consultation was held with the consulting surgeons Drs. D. Hayes Agnew and T. G. Morton, when it was decided to amputate as soon as the condition of the patient would warrant.

13th. I performed the operation, the patient being thoroughly chloroformed and placed in a chair, assisted by Drs. Morton, Sheppard, Fell, McGrath, and Hendrie, by making an incision from the acromion process down the anterior border of the deltoid five inches and a half in length, on the inner side of the cicatrix caused by the operation for ligating the anterior circumflex artery. Another incision was made on the outer side of this cicatrix for the purpose of removing all hardened tissue formed by it. A transverse incision, posteriorly, was then made through the deltoid down to the bone, after which the head of humerus was dissected, and the knife passed down behind the humerus close to the bone until it reached the transverse incision, where it was turned outward and a circular incision made of the remaining muscles. A few ounces of blood only were lost in the operation, the arteries being secured, after the first incision, by an assistant grasping them. The patient reacted very slowly, appearing for a time more dead than alive.

The after-treatment consisted in the application of *dry dressing* to the wound for the first five days, or until active inflammation had ceased and free suppuration set in, followed by a *very light* simple cerate dressing. All but an inch and a half of the lower or circular incision and one inch of the upper, just below the acromion, healed by the first intention.

No medicine was given during the remaining treatment. Cream and beef essence were allowed every two hours, and brandy every other hour, for five days, when tender solids began to be taken, in addition. From the day succeeding the operation the case went on rapidly to convalescence—patient walking about the hospital in *twelve* days, and on the twenty-first day he visited his family in this city, where he now resides. He wears an artificial arm which he can joint at the elbow by the action of shoulder, and is able to carry considerable loads with it.

The present appearance of the shoulder will be seen by the accompanying engraving taken from a photograph.

The humerus was necrosed entirely off at the olecranon fossa, below and about three inches from the head of the humerus above. An attempt was made by nature to repair this extensive destruction of bone tissue by throwing out new bone the entire length of the shaft.

